EXHIBIT E

Count	Constructive Reduction to Practice
Proposed Count I: A composite gas separation module, comprising: a) a porous metal substrate; b) an intermediate porous metal layer which includes a hydrogen permeable material, wherein the intermediate porous metal layer overlies the porous metal substrate; and c) a dense hydrogen-selective membrane, wherein the dense hydrogen-selective membrane overlies the intermediate porous metal layer.	**U.S. Provisional Patent Application Serial No. 60/457,061:** **Page 1, lines 7-15**: The present invention includes composite gas separation modules comprising a porous metal substrate, an intermediate porous metal layer, and a metal membrane that is selectively permeable to a gas, for example, hydrogen. The present invention also comprises forming an additional intermetallic protection layer on top of a protection layer produced by controlled in-situ oxidation of the substrate surface. This novel concept comprises the synthesis of particles, e.g., nano-size particles, of palladium and a second metal, for example, palladium-silver for palladium or palladium-silver membranes, palladium-copper for palladium-copper membranes) to form a porous palladium-metal layer as an intermetallic diffusion barrier. Constructive Reduction to Practice is also provided at: **Page 4, lines 20-23** **Page 5, lines 2-13** **Page 5, line 22 through page 6, line 11** **Originally filed Claims 1-8, and 13 at pages 7 and 8**

Count	Constructive Reduction to Practice
Proposed Count II: A method for selectively separating hydrogen gas from a hydrogen gas-containing gaseous stream, comprising the step of: directing the hydrogen gas-containing gaseous stream to a composite gas separation module, wherein the composite gas separation module includes: a) a porous metal substrate; b) an intermediate porous metal layer which includes a hydrogen permeable material, wherein the intermediate porous metal layer overlies the porous metal substrate; and c) a dense hydrogen-selective membrane, wherein the dense hydrogen-selective membrane overlies the intermediate porous metal layer; whereby hydrogen gas is at least partially partitioned from the gaseous stream by passing through the dense hydrogen-selective membrane.	**U.S. Provisional Patent Application Serial No. 60/457,061:** **Page 2, lines 25-29**: The final membrane obtained by covering the porous layer with a dense palladium layer has been shown to undergo a reduction in helium flux when held at 500°C indicating some sintering within the porous layer. The resulting membrane was shown to have a stable hydrogen flux over 500 hours of testing with a temperature of 500°C and a pressure difference of 1 atm. Constructive Reduction to Practice is also provided at: **Page 1, lines 7-15** **Page 3, line 11 through page 4, line 26** **Originally filed Claims 27-28 and 30 at pages 10-11**

Count	Constructive Reduction to Practice
Proposed Count III: A method for fabricating a composite gas separation module, comprising the steps of: a) applying an intermediate porous metal layer, which includes a hydrogen permeable material, over a porous metal substrate; and b) applying a dense hydrogen-selective membrane over the intermediate porous metal layer, thereby forming the composite gas separation module.	**U.S. Provisional Patent Application Serial No. 60/457,061:** **Page 2, lines 15-19**: The procedure of the invention is described below using a palladium-silver intermediate layer as an example. Following the formation of a protection layer by controlled in-situ oxidation of the porous metal support, a porous palladium-silver layer is deposited on the support by electroless plating. A dense hydrogen selective palladium layer is then formed by successive palladium plating steps. Constructive Reduction to Practice is also provided at: **Page 3, line 11 through page 4, line 6** **Page 4, lines 20-23** **Page 5, lines 2-13** **Page 5, line 22 through page 6, line 11** **Originally filed Claims 16 and 19 at pages 8 and 9**

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